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ABSTRACT

A pilot experiment aimed at discovering sex-specific language patterns as exhibited by males and females in conversation with same-sex and other-sex partners falsified the hypothesis frequently stated in the literature that males hold the dominant role in mixed-sex verbal interaction, at least in regard to college students. Twelve dyadic conversations (3 M/M, 3 F/F, 6 F/M) of the duration of fifteen minutes each were tape-recorded. The analysis of the transcripts based on positive and negative factors of dominance showed that among white undergraduate college students, men and women adopt different personality styles when there is disagreement on the topic of conversation. In addition, men feel more readily at ease with a same-sex stranger than do women. Differences in male and female communicative behavior thus do exist but they are not in the interactional area of dominance. References and data are appended. (Author/NCR)

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PATTERNS OF DOMINANCE IN SAME-SEX AND OTHER-SEX DYADIC INTERACTION

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A pilot experiment aimed at discovering sex-specific language patterns as exhibited by males and females in conversation with same-sex and other-sex partners falsified the hypothesis frequently stated in the literature that males hold the dominant role in mixed-sex verbal interaction, at least in regard to college students. Twelve dyadic conversations (3 M/M, 3 F/F, 6 F/M) of the duration of fifteen minutes each were tape recorded. The analysis of the transcripts based on positive and negative factors of dominance showed that among white undergraduate college students men and women adopt different personality styles when there is disagreement on the topic of conversation. In addition, men feel more readily at ease with a same-sex stranger than do women. Differences in male and female communicative behavior thus do exist but they are not in the interactional area of dominance.

Introduction

In any research whose goal it is to isolate the variable of sex, it is imperative that the social factors of inter-personal relationships, context, and situation be compatible. Much of the earlier research in woman's language confounded some or all of the social variables, and this is why it could be so easily falsified. The classic example of the latter is the sweeping generalizations of the celebrated article by Robin Lakoff (1973) which has indeed been disproved by several serious researchers (Baumann 1976).

Besides checking for age and socio-economic status, which is easily accomplished, the subjects in experiments or empirical observations on male

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and female language should also be matched for personality traits. The latter is an extremely difficult task.

In the experimental setting one could pretest the participants for personality traits. This procedure has the obvious disadvantage of making the subjects even more self-conscious than they are already when participating in a psychological experiment. In addition it requires a great number of subjects and a vast amount of time, neither easily available without funding.

In the naturalistic setting this would necessitate testing the subjects after the data have been collected. In a study involving a group of people the option to eliminate some of the subjects from the data base is unacceptable because it is the totality of the participants in an interaction which decides the exact nature of the interaction (von Raffler-Engel et al 1978).

In interactional research with a series of dyads like the one described in this paper, one could test the subjects after the data are collected and possibly eliminate all the conversational pairs which are not compatible on personality scores. This would require the original taping of a vast number of dyadic interactions.

We did not feel that such a cumbersome procedure was worth the expense in time and electronic equipment because it would still not have guaranteed a perfect research design given that it is extremely difficult, if not downright impossible, to make an adequate assessment of personality traits. There simply is not, as of today, a reliable, universally accepted theory of personality measurement. To quote the Encyclopedia of Psychology (Tokuma, 1972; 382): "Currently we find a welter of different theories of personality,

based on different methods and constructs. There is little agreement on the data to be studied, still less on a definition."

Measurements of dominance in relation to the whole of an individual's personality are complicated and no adequate psychological tests seem available at this time. Dominance is generally equated with an authoritarian attitude. According to the Handbook of General Psychology (Howarth and Cattell, 1973; 803) a dominant person is "sure of himself, sarcastic about rules, unconventional, grave, sometimes haughty, and not cooperative except to dominate others...does not try to be polite to waiters...and upbraids poor workmen."

In their study of interactional behavior Rogers and Jones (1975) used the Cattell scale (1967) and the Gough check list (1969) to classify their subjects into high, mid, and low dominant. They elimated those subjects which gave contradictory results when compared on the Cattell and Gough personality tests.

We did not feel that their testing procedure was adequate for our purposes. What determines dominance in the conversational setting is the inter-personal relationship, the context, and the situation. Personality traits are, of course, relevant factors as in everything involving human behavior, but how far they influence the total picture depends on their interplay with the above social factors. In the classroom setting, for example, an introvert teacher lecturing to an extrovert group of students will hold the dominant position by the mutually agreed requirements of his role. In a traditional society where men's and women's roles are clearly defined, a woman who is dominant by natural temperament will be submissive to a man as a part of the behavior into which both have been socialized. In modern

society it appears that it is not the sex, but rather the status of the interactants that determines the extent to which a person displays the various options of conversational interaction.

Hypothesis

American society is currently in a state of transition from a male-oriented society to a society with equal opportunities for both sexes. It is our belief that the college population is in the forefront of this transition. If we are correct in our assumption, everything else being equal in a conversational situation, the distribution of dominance between male and female interactants should be random.

Our hypothesis that among undergraduate college students from the middle classes, variations in language behavior can not easily be categorized along sex line, but should be mostly ascribed to differences in individual personalities is based on previous studies on woman's language conducted in our Linguistics Program at Vanderbilt University (Buckner, 1977; Roberts and Hash, 1978; Rubin and von Raffler-Engel 1975; Smith and Cunningham 1978; von Raffler-Engel and Buckner 1976).

The findings of our research group which restricts its subject population to college students, are diametrically opposed to the results obtained by researchers working with a more varied population. In mixed-sex groups these authors find that the male is invariably the dominant conversation partner for the reasons stated by Henley (1977:78): "Control of a conversation's direction reflects status and power. Partly because of male patterns of interruption and of female patterns of support and agreement, control of conversational topics generally rests with the males, and women may find it difficult or impossible to initiate a topic when conversing with men.

That control need not come solely from men's own initiation of topics, but may well flow from their failure to respond to many female-initiated topics."

Henley found that interruption of the speaker was a male trait, and support and agreement were female traits of conversational behavior. Speaker-interruption also emerged as a male-specific dominance trait in research by De Stefano (1975), Eakins and Eakins (1976), and West (1978). Zimmermann and West (1975) found that 96% of all interruptions and 100% of overlaps were male initiated in their speech samples. Initiation of conversation and topic change are also considered male traits (Eubanks 1975; Henley 1977).

Women, on the other hand, were found to exhibit submissive traits, such as questioning. De Stefano (1975) noted that women's use of request forms shows their powerlessness in society as it is a trait which puts the individual in a dependent position in which he/she is "begging information." Women were also found using more back-channel reinforcers than men. According to Henley (1977:77) the women's back-channelling is a "stroking" behavior which supplies encouragement to the male and which is essential for the woman to retain her femininity and womanliness as prescribed by cultural norms.

Experimental Design

To test our hypothesis we selected a fairly homogeneous subject population from the same university. All being undergraduate students, there was no difference in power structure. We kept the physical setting constant, and gave all participants the same topic of conversation to be covered within an identical time period. The presence of the male and of the female

experimenter was equally distributed during the testing sessions. Both were undergraduate students themselves.

Subjects

We recruited six men and six women from among the white undergraduate students at Vanderbilt University who were willing to spare fifteen minutes on two separate occasions. The subjects were not informed about the purpose of the experiment. Each subject was assigned to another subject with whom she/he would speak. Each person participated in two taping sessions, one with a same-sex co-subject and the other with an opposite-sex partner. The total number of tapings was twelve: three all-female pairs, three all-male pairs, and six mixed pairs. They were assigned so that the subjects were strangers to each other. (See Chart A)

Test Procedure

Each pair was given a card with four or five questions ranging from national politics to student alcoholism and was instructed to choose any of the topics for as long as possible, changing topics as often as they felt this was needed, until the experimenter terminated the dialogue. The female experimenter monitored the female pairs and the male experimenter monitored the male pairs. Then both experimenters monitored three mixed pairs each.

The purpose of allowing subjects to change topics was to obtain as comfortable a conversational setting as possible and not have subjects force themselves to continue discussing a topic after they had run out of things to say. Each taping session lasted fifteen minutes.

Analytical Procedures

In order to investigate whether sex was truly not a determining factor in establishing conversational dominance among college students, the transcripts of the twelve face-to-face interactions were analyzed according to the following features:

- 1) number of back-channel reinforcers used,
- 2) number of questions asked,

+ 3) how often the participant initiated change of topic during the conversation,
+ 4) how many times she/he interrupted the other partner,

± 5) length of speaking turn as measured by the number of words uttered

Of these variables the first four were employed in the determination of dominance. The first and second criteria were given negative values while the remaining features 3 and 4 were given positive values.

Eventually a cumulative count was established for each interactant in each of her/his conversational interactions (see Chart I). The absolute difference between the two cumulative counts was taken to determine the *degree of dominance*, i.e., the extent to which one person displayed power over another. Chart II shows the scores of each subject and the *degree of dominance* among the pairs. On both charts the pairs are ranked according to *degree of dominance*.

The variables are not necessarily consistent across the board, i.e., if a person is found to be dominant, she/he does not necessarily dominate in all four areas. It is rather the cumulative count which indicates dominance in our evaluation. Also included on the chart, but not in the cumulative count, is the category of length of speaking determined by a word count. Number 5 was not employed as a criterion for establishing

dominance because dominance and length of speaking are not necessarily tied together. Komarovsky's analysis (1962) of married couples indicates that the dominant partner may often be the less talkative of the two, thus falsifying previous findings to the contrary (Strotbeck, 1951).

Research Results A: Interactional Behavior of Individuals in Homogeneous and Mixed Pairs

The purpose of setting up the homogeneous pairs was to provide a control situation in which dominance could be studied. Because of the random assignment of partners, the dominant and passive subjects from the homogeneous pairs were assigned in no particular order for the mixed situation. The hypothesis here was that if a man were likely to overpower a woman, then even the men who were passive in a homogeneous pair would become dominant when speaking to a woman. This, however, happened only twice to a man, while an equal number changed from dominant to non-dominant, and two others did not change at all. Therefore, the propensity to dominate is not sex but personality-related (see Charts II and III). Dominance is dependent on intra- and inter-personal factors.

The belief expressed in the literature that males lead and dominate conversation while females sit back passively and allow the male to control does not hold true in our sample, as not all of the mixed conversations were male-dominated. In three of the six mixed conversations the female was the obvious dominant figure who led the conversation.

Examining male and female behavior with regard to the four features which we considered relavant in determining dominance, our study shows the following data:

(1) Back-channelling (negative). In this study four of the women and

two of the men provide more reinforcements than their partners, supporting the female-specificity of this trait. A case to note is that of pair M6/F4, in which the male reinforces only one time in comparison to the woman's 51 reinforcers.

(2) Questionings (negative). Questioning as a submissive operation is considered a female trait. Yet only one of the female interactants is found to ask more questions of her male counterpart.

(3) Initiation of topic change (positive). The question in initiation of conversation and topic change is fairly difficult to work with here because of the small size of the numbers. Since there is a low likelihood of many topic changes within a 15-minute conversation, the figures recorded on the chart are low. However, out of the pairs that were not tied 1-1 (F1/M4, M2/F6) the female initiated more often than did her partner: three females dominated in initiation compared to one male doing so. This falsifies the studies contending that initiation of conversation is a male-specific trait.

(4) Interruption of speaker (positive). The trait of interruption is considered to be a male-specific trait. However, this was not the case in our study, as 4/6 of the female participants exhibited more interruptive behavior than their male partners. And, out of all the participants, the three interactants showing the most interruptions were female, including one female who, according to the cumulative count, was not even in the dominant position.

(5) Length of speaking turn (neutral). The assertion that men dominate length of speaking (De Stefano 1975, Eubanks 1975, Henley 1977) does not hold in all cases: three females as well as three males spoke longer

than their partner. Incidentally, although length of speaking does not necessarily indicate dominance in our sample, each of the partners who spoke the most was the dominant partner.

Our findings closely parallel those of two co-workers in our research group in the Vanderbilt University Linguistics program. Roberts and Hash (1978) tested twenty undergraduate students (10M and 10F) for degree of aggressiveness when being introduced to each other by a third undergraduate student. They found that sex was not a relevant factor in establishing degree of agressiveness. Their research results showed an almost even distribution of the three degrees of agressiveness:

Aggressive	M 6	F 7
Slightly aggressive	M 2	F 2
Non-aggressive	M 2	F 1

Research Results B: Inherent Degree of Dominance in Men and Women

In conclusion, our research does not support the standard criteria for male dominance. In our study it was not on the level of interaction per se that sex differences could be noticed. It does, however, appear that men are more dominant than women when it comes to expressing that trait in the absolute.

A difference between the homogeneous pairs and the mixed pairs was found in the *degree of dominance* calculated for each pair. The average *degree of dominance* for the homogeneous pairs is 24 1/6, while in mixed pairs it is 36 5/6. These figures indicate that in mixed pairs the tendency to dominate is greater than in homogeneous pairs (see Chart II).

In all the pairs, the greatest *degree of dominance* was exhibited by

the males. When the cumulative counts of males and females were added to obtain a total count, the dominant male was more dominant than the dominant female in both the homogeneous and the mixed pairs (see Chart IV). Perhaps these women who did display dominance were still somewhat uneasy in usurping the traditional male-dominance paradigm, and therefore exhibited a lesser amount of dominance.

In conclusion, although males were not found to be the unconditional dominant personality, they still exhibited a greater degree of dominance than dominant females.

Related to the style of speaking illustrated by conflict is the ease in speaking exhibited by the males, a definite difference was perceived by the one of the two experimenters who had not taped the all-male sessions. She was convinced that the males had known each other for months, rather than just five or ten minutes before the taping. The men laughed and joked with each other freely, as well as making snide comments to the male experimenter who had taped them. This ease in speaking was in no way demonstrated by the women; they made fewer humorous comments, and their jokes were more restrained than those of the men. There were also many uncomfortable silences during the women's conversations. Only one remark was made about the experimenter and this was merely a side comment, and not an insult directed toward her.

The women also conducted the experiment exactly as they had been instructed; they followed the directions given to them and stayed on the subject. The males, on the other hand, strayed from the questions and made many side remarks that showed they did not take their instructions as seriously as the women did. One male pair went so far as to reject all the topics

provided and make up their own.

These styles of speaking carried over to the mixed pairs. To the unsuspecting listener those conversations that were female-dominant sounded very much like the all-female pairs, as the male-dominant mixed pairs sounded like the all-male pairs. However, in these male-dominant mixed pairs, the tone was never as extreme as had been found in the male homogenous pairs.

Research Results C: Content Analysis of Discourse in Homogeneous and Mixed Pairs

After analysing the interactional level of the verbal exchange we proceeded to study whether sex related factors were involved in the manner in which the subjects handled the assigned topics of conversation. We have not yet completed the analysis of the micro-linguistic level, but eventually will compare male and female phonology and prosodics, intra- and inter-sentence, syntax, and choice of lexicon.

For the content analysis we selected one topic--that of disagreement. It was found that if a disagreement arises within a conversation, the conflict will be resolved quickly, usually by the non-dominant person (see Chart V).

In the homogeneous pairs, when a conflict is resolved, the passive participant is more likely to concede than the dominant, either partially or completely, by seeing the other person's point of view and, if not totally agreeing with it, at least accepting it as valid. The dominant person may also concede in this fashion, but he/she does so less often, as indicated by the figures.

In the case of disagreement in the mixed pairs, the situation is

similar to that of the homogeneous pairs. The non-dominant participant conceded to the other's opinion more than the dominant did. One of the conversations showed no conciliatory action at all. In this conversation (M6/F4), the male dominated the conversation so totally that the female rarely said more than two sentences at one time. So when she disagreed, the male would answer her with such a long discourse without letting her speak that she just did not say anything.

Although both sets of pairs illustrate similar patterns of resolution of a disagreement, there do exist differences in the manner of confrontation between male and female pairs. In the all female pairs, the woman will state her opinion as a matter-of-fact statement, such as "I think religion should not be in schools at all." If her partner disagrees with her, she also states her opinion matter-of-factly: "I think to a certain extent." The disagreement will be resolved quickly, so that the conflict does not last long. In this same conversation, the next statement came from the first female: "Well, I can see an objective program like introduce [*sic*] you to Christianity or Muslim." In this example, as in the other female disagreements, the conflict was resolved as soon as it was recognized.

Men, on the other hand, are more forceful and blunt about disagreeing. The male may very strongly express his opinion, and in some instances use almost rough techniques. However, males will still try to resolve the conflict by reaching a compromise, although they are more inclined to try to assert themselves once again. Eventually, however, the conflict will be resolved. For example, in one pair the participants were very outspoken during their conversation. One conflict involved the first partner announc-

ing that the question the other had liked was dumb. When the second subject tried to convince his partner that the topic would be easy to talk about, the first partner repeated that he still thought the question was dumb. After having been thus informed, the second partner dropped the subject. So although he tried to get his own way, the second character soon gave up and resolved the conflict by no longer asserting himself.

Conclusion

In conclusion, few sex-specific differences were found in the interactional areas of dominance, initiation, interruption, questioning and reinforcement. The differences found were in the *degree of dominance* qua dominance and in discourse structure. All-male and all-female pairs differed in discourse content and in the mixed pairs, the dominant person set the topic and the tone of the conversation: female dominated conversations sounded like all-female pairs, and male-dominated conversations sounded like all-male pairs. Sex-conditioned differences in content were also apparent in another study by a member of our group who noticed that males used more concise matter-of-fact statements than women when asked to describe the same entity (Lippman 1977).

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CHART A

EXPERIMENTAL DESIGN

M1	M4	F1	F4
M2	M5	F2	F5
M3	M6	F3	F6

M1	F2	M4	F1
M2	F6	M5	F3
M3	F5	M6	F4

CHART I

MIXED PAIRS

PAIR	DOM	REINF PER 1000 WORDS		QUEST		INIT		INTER		WORDS		DEGREE OF DOM
F1 M4	F1	9	61	3	6	1	1	19	5	2084	978	69
M6 F4	M6	1	51	13	6	5	0	14	2	2498	450	60
M5 F3	M5	10	24	4	25	1	2	0	1	2135	677	33
F2 M1	F2	26	41	13	15	3	1	10	0	1321	1183	29
M2 F6	M2	8	40	8	5	1	1	5	12	1585	839	22
F5 M3	F5	16	12	5	22	2	1	4	10	1142	904	8

HOMOGENEOUS PAIRS

PAIR	DOM	REINF PER 1000 WORDS		QUEST		INIT		INTER		WORDS		DEGREE OF DOM
M3 M6	M3	8	60	11	9	3	5	29	36	1732	1408	41
F6 F3	F6	25	41	6	20	1	2	7	3	1155	1231	33
M1 M4	M1	6	36	6	1	2	0	5	5	1077	562	27
F1 F4	F1	7	32	9	6	0	3	8	3	1632	937	24
M2 M5	M2	8	22	6	4	2	0	9	7	1690	1456	16
F2 F5	F2	43	45	20	8	3	1	16	4	1548	1135	4

CHART II

DOMINANCE CHART

Homogeneous Pairs

		Degree of Dominance
M3: 13	M6: -28	41
F6: -23	F3: -56	33
M1: -5	M4: -32	27
F1: -8	F4: -32	24
M2: -3	M5: -19	16
F2: -44	F5: -48	4

Mixed Pairs

		Degree of Dominance
F1: 8	M4: -61	69
M6: 5	F4: -55	60
M5: -13	F3: -46	33
F2: -26	M1: -55	29
M2: -10	F6: -32	22
F5: -15	M3: -23	8

average degree of dominance: mixed: 36 5/6
homo : 24 1/6
all : 30.5

CHART III

INDIVIDUAL BEHAVIOR IN SAME-SEX AND OPPOSITE-SEX DYADIC INTERACTION

	HOMO	MIXED	CHANGE	ABSOLUTE DIFF
F1	-8	8	d-d	16
F2	-44	-26	d-d	18
F3	-56	-46	nd-nd	10
F4	-32	-55	nd-nd	23
F5	-48	-15	nd-d	33
F6	-23	-32	d-nd	9
M1	-5	-55	d-nd	50
M2	-3	-10	d-d	7
M3	13	-23	d-nd	36
M4	-32	-61	nd-nd	29
M5	-19	-13	nd-d	6
M6	-28	5	nd-d	33

CHART IV

Homogeneous Pairs

Dominant Male	Dominant Female
13	-23
-5	-8
-3	-44
Total 5	-75
Av.: 1.667	-25

Mixed Pairs

Dominant Male	Dominant Female
5	8
-13	-26
-10	-15
Total-18	-33
Av.: -2.667	-11

CHART V

DISAGREEMENT CHART

Homogeneous Pairs

PAIR	DOM	D CONCEDES	ND CONCEDES	NO RESOLUTION	TOTAL
M3 M6	M3	1	0	1	2
F6 F3	F6	0	4	0	4
M1 M4	M1	0	2	0	2
F1 F4	F1	1	0	0	1
M2 M5	M2	3	1	0	4
F2 F5	F2	1	1	0	2
Total		6	8	1	15

Mixed Pairs

PAIR	DOM	D CONCEDES	ND CONCEDES	NO RESOLUTION	TOTAL
F1 M4	F1	0	2	0	2
M6 F4	M6	0	0	6	6
M5 F3	M5	0	1	0	1
F2 M1	F2	0	0	0	0
M2 F6	M2	1	1	1	3
F5 M3	F5	1	0	0	1
Total		2	4	7	13